

## ABSTRACT OF THE INVENTION

The present invention relates to a system and methodology facilitating network communications between an industrial control system and a client application that interacts with a plurality of data items on the control system. The client application initiates a request or query to the industrial control system for an identification of selected data items of interest. Based on information received in the request, an aggregation component can be constructed by the client, wherein names and buffer allocations relating to the data items of interest are provided. The aggregation component is then installed by the client and updated in the industrial control system, thus providing information access to the client application when fresh or updated information is desired. Information is accessed *via* a communications packet that is generated from the data items identified in the aggregation component. Information transmitted to the control system can also be optimized by identifying the information *via* handle identifiers that are employed in place of explicit reference or tag names.